

Claims

- [c1] A spinal implant kit, comprising:
 - an access device having an inner lumen extending between proximal and distal ends, and at least one opening formed in a sidewall thereof adjacent to the distal end; and
 - a spinal fixation element having a feature formed thereon adjacent to a terminal end thereof, the feature being sized to prevent passage thereof through the at least one opening in the access device.
- [c2] The spinal implant kit of claim 1, wherein the feature comprises a bulbous protrusion formed on the terminal end of the spinal fixation element.
- [c3] The spinal implant kit of claim 2, wherein the bulbous protrusion includes a substantially flattened portion.
- [c4] The spinal implant kit of claim 1, wherein the feature comprises a protrusion extending radially outward from the spinal fixation element.
- [c5] The spinal implant kit of claim 1, wherein the at least one sidewall opening in the access device extends from the distal end of the access device and terminates distal

to the proximal end of the access device.

- [c6] The spinal implant kit of claim 5, wherein the at least one opening has a length that is greater than a length of the spinal fixation element.
- [c7] The spinal implant kit of claim 5, wherein the access device includes opposed openings formed therein.
- [c8] The spinal implant kit of claim 1, further comprising a pusher member adapted to advance the spinal fixation element in a distal direction within the access device.
- [c9] The spinal implant kit of claim 8, wherein the pusher member comprises an elongate shaft having a proximal, handle portion and a distal portion that is slidably disposable within and extends into the at least one opening in the sidewall of the access device.
- [c10] The spinal implant kit of claim 1, further comprising a pusher member that is slidably disposable within the at least one opening in the sidewall of the access device such that it is effective to cause a portion of the spinal fixation element to extend through the at least one opening in the sidewall.
- [c11] The spinal implant kit of claim 10, further comprising an actuating member adapted to move the pusher member

between a first, proximal position and a second, distal position.

- [c12] A spinal implant kit, comprising:
 - an access device having an inner lumen extending between proximal and distal ends, and at least one opening formed in a sidewall thereof adjacent to the distal end; and
 - a spinal fixation element having a bulbous protrusion formed thereon adjacent to a terminal end thereof, the bulbous protrusion being configured to prevent passage thereof through the at least one opening in the access device.
- [c13] The spinal implant kit of claim 12, wherein the bulbous protrusion has a diameter that is greater than a width of the at least one opening in the access device.
- [c14] A method for implanting a spinal fixation element into at least one spinal anchor disposed within a vertebra in a patient's spinal column, comprising:
 - introducing a spinal fixation element having a feature formed adjacent to a terminal end thereof through a lumen in an access device coupled to a spinal anchor, the access device including a slot formed in a sidewall adjacent to a distal end thereof and adapted to prevent the feature from passing therethrough; and

manipulating the spinal fixation element to cause the feature to sit within a receiving member of the spinal anchor coupled to the access device, and to cause a remaining portion of the spinal fixation element to extend through the slot.

- [c15] The method of claim 14, further comprising the step of locking the feature of the spinal fixation element with respect to the spinal anchor.
- [c16] The method of claim 14, wherein the feature comprises a bulbous protrusion formed on the terminal end of the spinal fixation element.
- [c17] The method of claim 14, wherein the slot in the access device extends from the distal end of the access device and terminates distal to the proximal end of the access device.
- [c18] The method of claim 17, wherein the slot has a length that is greater than a length of the spinal fixation element.
- [c19] The method of claim 17, wherein the access device has a diameter that is less than a length of the spinal fixation element.
- [c20] The method of claim 14, wherein the step of manipulat-

ing the spinal fixation element comprises advancing the spinal fixation element distally within the access device using a pusher member.

- [c21] The method of claim 20, wherein the pusher member is slidably disposed within the at least one opening in the sidewall of the access device such that it is effective to cause a portion of the spinal fixation element to extend through the at least one opening in the sidewall.
- [c22] The method of claim 14, wherein the step of manipulating the spinal fixation element further comprises positioning the remaining portion of the spinal fixation element within a receiving member of a spinal anchor disposed within an adjacent vertebra in a patient's spinal column.
- [c23] The method of claim 14, wherein the spinal fixation element is inserted into a proximal end of the access device with the feature leading.
- [c24] The method of claim 23, wherein the step of manipulating the spinal fixation element comprises extending a trailing portion of the spinal fixation element through the slot in the access device.
- [c25] The method of claim 14, wherein the spinal fixation element is inserted into a proximal end of the access device

with the feature trailing.

- [c26] The method of claim 25, wherein the step of manipulating the spinal fixation element comprises extending a leading portion of the spinal fixation element through the slot in the access device, and then advancing the feature distally within the access device to seat the feature within the receiving member of the spinal anchor.
- [c27] A method for implanting a spinal fixation element, comprising:
 - providing at least two spinal anchors implanted in adjacent vertebrae of a patient's spine;
 - providing an access device having an inner lumen extending between proximal and distal ends, the distal end being adapted to couple to one of the spinal anchors, the access device further including a slot formed in a sidewall thereof adjacent to the distal end;
 - providing a spinal fixation element having a first end and a second end with a feature formed thereon, the feature being sized to prevent passage thereof through the slot in the sidewall of the access device;
 - inserting the spinal fixation element through the lumen in the access device; and
 - manipulating the spinal fixation element to cause the feature to be positioned within the spinal anchor attached to the access device and the first end to extend

through the slot, such that the spinal fixation element extends between the spinal anchors.

- [c28] The method of claim 27, wherein the spinal fixation element is inserted through the lumen in the access device with the second end leading and the first end trailing.
- [c29] The method of claim 27, wherein the spinal fixation element is inserted through the lumen in the access device with the first end leading and the second end trailing.